

# VELIM AND VIOLENCE

Velim y la violencia

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**ABSTRACT** The Bronze Age site of Velim, Czech Republic, saw the deposition of much skeletal material, mostly disarticulated and dumped in disorder in pits and ditches. A number of explanations have been advanced for this (cult, defence, normal burial, warfare followed by massacre). The paper considers the evidence for each explanation, and attempts a reinterpretation in the light of recent work on comparable sites, notably in the Tollense valley in north-east Germany, and Cliffs End Farm, south-east England.

**Key words:** Velim, Violence, Warfare, Tollense valley.

**RESUMEN** En el yacimiento de la Edad del Bronce de Velim, República Checa, tuvo lugar la deposición de una gran cantidad de esqueletos, sobre todo desarticulados y arrojados desordenadamente en pozos y fosos. Se han ofrecido varias explicaciones para este fenómeno (culto, defensa, práctica de enterramiento habitual, guerra seguida por masacre). Este artículo considera la evidencia usada para cada explicación e intenta una reinterpretación a la luz de los trabajos recientes en yacimientos similares, especialmente en el valle Tollense en el nordeste de Alemania, y Cliffs End Farm, en el sudeste de Inglaterra.

**Palabras clave:** Velim, Violencia, Guerra, Valle Tollense.

## INTRODUCTION

The Bronze Age site of Velim-Skalka, Czech Republic, is well known as a place where large numbers of human bones were buried in ditches and pits. The site covers a timespan from the late part of the Early Bronze Age through to the transition from Middle to Late Bronze Age (Br C-D), the start of the Urnfield period, with radiocarbon dates suggesting a time for its destruction around 1400 cal BC (table 1).

Many of the bones lie in disorder (fig. 1). As well as the large quantities of bone, a series of gold finds have been made, mostly in the form of hoards but in one case apparently serving as grave-goods (personal adornments for a woman) (references to

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TABLE 1  
AVAILABLE DATES FOR VELIM-SKALKA DESTRUCTION LEVELS

<i>Lab N.º</i>	<i>Feature</i>	<i>Context</i>	<i>Material</i>	<i>Date BP</i>	<i>Cal BC 1σ</i>	<i>Cal BC 2σ</i>
GrN-27615	Fortification H (Red Ditch)	Ditch bottom	Charcoal	3080 ± 20	1397 - 1302	1411 - 1284
GrN-27617	Objekt 64, north pit	Near bottom of pit, N quadrant	Dark earth with grain	3160 ± 20	1451 - 1414	1497 - 1406
GrN-27618	Objekt 64, north pit	Near bottom of pit, NE sector	Dark earth with grain	3125 ± 20	1430 - 1326	1441 - 1306
GrN-27619	Objekt 64, north pit	Near bottom of pit, SW sector	Charcoal	2990 ± 80	1382 - 1111	1421 - 1004
GrN-27620	Objekt 64, north pit	Near bottom of pit, SW sector	Charcoal	3115 ± 35	1430 - 1307	1488 - 1281
	Objekt 64, north pit, dates 2,3 & 5 combined			3139 ± 14	1431 - 1410	1447 - 1392

these finds can be found in the publications of the site mentioned below). This apparent lack of respect for the remains of the dead has led to speculation about the function of the site, and the reasons for the disposal of human bodies with such carelessness or callousness. In this article I want to revisit some of the hypotheses advanced, and consider them in the light of more recent work on sites in central Europe and elsewhere, and dating both to the Bronze Age and to other periods.

## BACKGROUND

The Skalka site at Velim has been the subject of a number of excavation projects since it was first identified in the 1920s. The most extensive work, however, results from excavations carried out under rescue conditions starting in 1984 and continuing without a break to the late 1990s, with further small-scale work taking place through to the present day. Initially work was undertaken by the Archaeological Institute of the Czechoslovak Academy of Sciences; the first systematic article presenting the results was published in 1992, describing the work up to 1990 and providing some information on the field observations in ditches and pits, with photographs (though no plans or section drawings) (Hrala *et al.*, 1992). In 2000 a larger publication appeared, again with little information on the detail of the site features but including an interpretation of the site as a cult centre, and a long presentation of pottery from the site (Hrala, 2000b).

In 1992, I began fieldwork at Velim with a team from Durham University, the programme continuing until 1995; this work was eventually published in full in 2007 (Harding *et al.*, 2007; various short interim reports had appeared in the meantime). This campaign of excavation and survey had originally been intended to have the character of a rescue exercise, given the strain placed on the resources of the Prague Institute of Archaeology by the extent and complexity of the remains at Velim; but the deposits were so deep and complex, and the information potential of the remains



Fig. 1.—Velim-Skalka: Ditch E, Feature 30, Pit 2, plan of the scattered human bone remains (source: Vávra, 2000).

discovered so great, that it was necessary to excavate much more slowly than had been intended, in order to extract as much data as possible. In any case, the situation on site was difficult: many of the plots had already been sold off for house-building, making them inaccessible for excavation; around the site there were roadways formed of large concrete slabs, as well as a range of service trenches; large tanks intended to serve as septic tanks had been brought in and lay on the ground surface; all this added to the existing damage to the site caused by sand extraction, the digging of practice trenches by the military in the post-war years, and the removal of at least half the original site by a quarry on the south side. All these factors meant that the amount of the site actually available for study was severely limited, and while it would have been theoretically possible, given time and money, to excavate the surviving ditches and pits more extensively, this was not practicable in the circumstances that prevailed at the time. In practice, what has been recovered probably represents a good sample of what was once present in the northern half of the site. It is of course frustrating that so much had already been lost to quarrying and sand extraction, not to speak of the decision taken by the planning authorities in the 1970s and early 1980s to make the area available for residential housing, even though it was a designated archaeological site that should have been protected. In other words, what we know about the site from excavation, though incomplete and imperfect in many ways (particularly as far as the detail of the excavations prior to 1992 is concerned), seems to be a fair guide to the character of the site. Excavating more pits would run the danger of producing repetitive information. I therefore proceed on the basis that the published information about the site is representative of what actually occurred there.

## THE CHARACTER OF THE ARCHAEOLOGICAL REMAINS

Most of the archaeological features at Velim are pits and ditches (fig. 2). In the part of the site excavated in the 1980s a line of post-holes representing a palisade was found; a further example was found in 1993-94. Also in the 1980s the slots for the foundations of a rectangular structure were detected in the south-eastern excavation area, though no detail on the nature of the building was recovered (Vávra, 2000:36, Feature 142); Hrala discussed a number of what he interpreted as “structures” in Sonda 23 in the north-western part of the site (Hrala, 2000b), though subsequent investigation of the neighbouring area (Sonda 12E) produced another series of comparable pits that seemed more likely to have formed some kind of gateway (Harding *et al.*, 2007:48-49, fig. 2:55).

The most obvious line of ditches and pits, with which the palisade runs concentrically, lies to the south of the excavated area; it runs a curving course and has been considered by the excavators to be just the northernmost part of a once complete circular space.

Unfortunately almost nothing is known about the contents of that space, as most of the area has been destroyed and geophysical survey produced no clear results. In addition, the ditch circuit runs directly into a complex of pits, one of which (Sonda 27) was very deep and contained large quantities of human bones, including one, a female, laid out in anatomical order and equipped with gold ornaments (Skeleton K14:

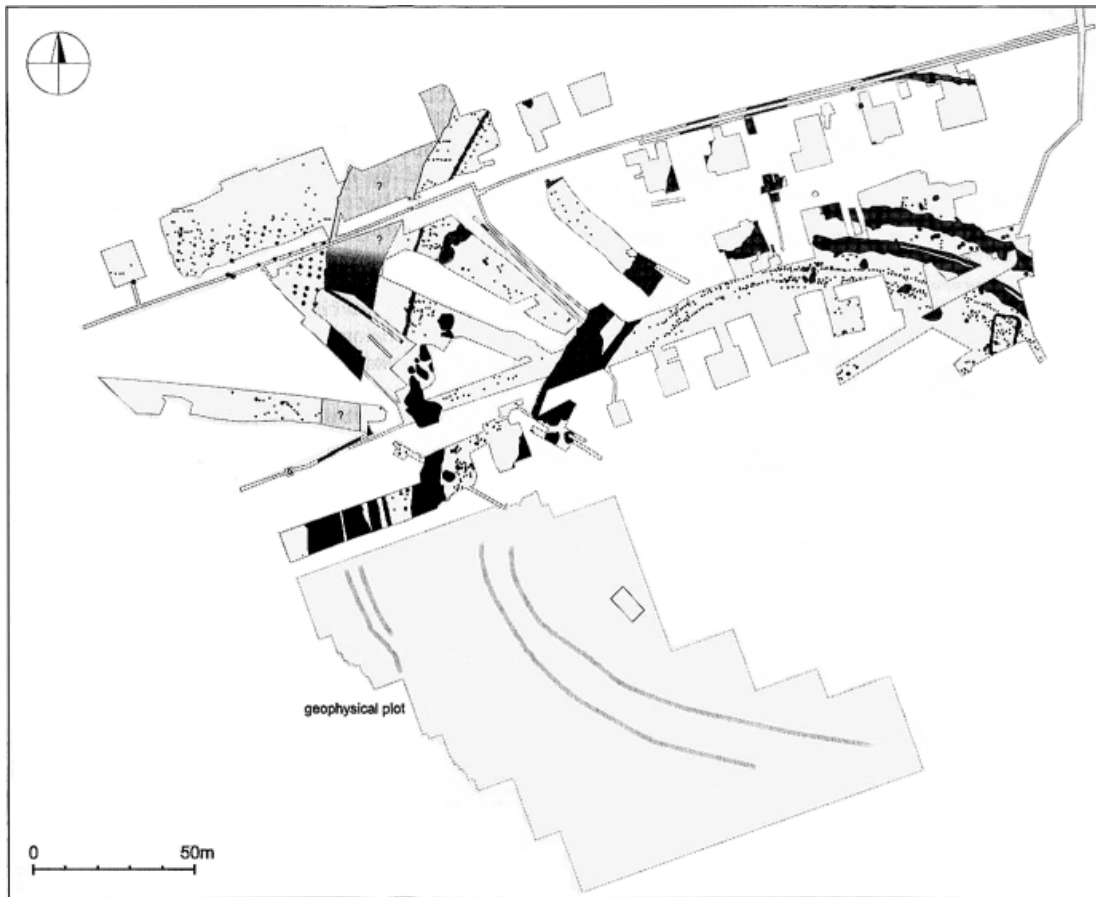


Fig. 2.—Plan of the excavated features at Velim-Skalka (small soundings undertaken in the last few years are not included).

Hrala *et al.*, 1992:301, fig. 9:2; Vávra, 2000:17-19, fig. III:8). A little to the west, a pit completely excavated by the British team had more of a domestic character, though it did contain some human and animal bone, and a crude figurine (Harding *et al.*, 2007:22-25, 76 plate 15) (plate I).

The other dominant feature is a broad and shallow ditch, containing abundant burnt material, mainly natural clay and marl, coloured pink, yellow, and white (plate II). This was sectioned by both the Czech team (Vávra, 2000:32-35, figs. III:20-III:23) and the British (Harding *et al.*, 2007:36-48, figs. 2:47-2:53). Both groups interpreted it as part of a massive fortification, with an internal rampart which fell into the ditch during a massive conflagration that ended occupation on the site.

## INTERPRETATIONS

### Cult and ritual

Jiří Hrala believed that Velim was a cult site. In his fullest published interpretation of the site (Hrala, 2000a), he stressed the significance of the hoard finds of gold and bronze, the “numerous fortification features”, and the pits containing human skeletal material or whole skeletons. Hoard V contained bronze objects believed to have formed one composite ornament, perhaps for the hair; this suggested to Hrala elements of a “hair cult”, with suggested parallels in European prehistory and folklore. The skeletal material, including crania without mandibles, partial skeletons, and the like, with many signs of peri-mortem trauma, could easily be reconciled with a ritual explanation, for instance human sacrifice. This trauma does not, however, show any patterning, which might be expected if people were being killed for ritual reasons (for instance, through decapitation). The digging of deep shafts, in which the human bone occurred, was another element with parallels in ritual at other periods, for instance in the Celtic world. Cut marks on some of the bones suggested cannibalism, an explanation Hrala derived from Jan Jelínek (1993) and preliminary reports by Marta Dočkalová (1988:139; 1990:201) – but about which she was later very sceptical (*in litt.* 2002).

The fortification features presented Hrala with more of an enigma, but the presence of human bone in some ditches, and the apparent absence of domestic dwellings, suggested to him that the banks and ditches were not defensive in a normal sense.

Finally, the Skalka site is known to have been marked by prominent rock formations (since quarried away), which would have given the locality a special character, perhaps visible from some distance away – even if not as noticeable as the prominent rock outcrops, such as Trosky, in the “Bohemian Paradise” some 50 km to the north.

### Defence

The excavator who has most experience of the site, and explored more of its features than anyone else, is Miloš Vávra. His various contributions (Vávra, 1999; 2000; Vávra & Šťastný, 2003; 2004) are explicit in designating the ditch features as fortifications; the outer ditch ring, for instance (Fortification H in Vávra’s numbering system), showed clear signs of violent destruction and evidence of a stone wall on the inner edge of the ditch (plate II). Similar conclusions, though with some variation in the sequence suggested, were arrived at by Harding (2007:46-48). Since there is the one recovered rectangular building inside the innermost ditch, it can be argued that the site had domestic elements and was a defended settlement – albeit with some unusual characteristics. The inner ditches seem much more likely to have been in fact strings of pits rather than continuous ditches (this was certainly the case with some of them, though most of the reconstructions published by the Czech team show them as continuous (e.g. Hrala *et al.*, 2000:Plan 2), and many other places; a more realistic reconstruction is shown in Harding *et al.*, 2007:145, fig. 10:1. By contrast, the outermost ditches, along with the presumed associated rampart, seems indisputably defensive in character.

## Burial

A radically different interpretation of the site was advanced by Heidi Peter-Röcher in 2005, seeing it not as a cult place or representing the aftermath of a warlike encounter, but as a burial site (Peter-Röcher, 2005). After pointing to various difficulties in understanding the site, as a result of its incomplete state and the shortcomings of the excavation, she pointed out that interpretations up till that point had always proceeded from the assumption that the site was a fortified settlement that was later used for ritual purposes – in other words, that first of all there ditches were dug, the ditches later being used for the deposition of bodies. Instead, she proposed that most, if not all, of the human depositions were actually normal burials, the displacement having occurred through digging for later depositions. A few instances were pointed out where grave-goods were apparently provided with individual skeletons (or skeletal parts). The rich burial of a woman (feature 30, skeleton K18) was regarded as especially significant in this respect, since the gold spirals and other objects found with or near her could be paralleled in the West Bohemian Tumulus culture. Peter-Röcher admitted that no comparison could be made with “conventional” graves in the area, since there were, to her knowledge, none.

Harding *et al.* (2007:148-149) gave a series of reasons why this view was not acceptable (for instance, the notable lack of complete skeletons, the lack of grave-goods, the fact that bodies were deposited in groups at a single time; Knüsel also pointed out that even skeleton K18 is hardly a “normal” burial since the grave-goods lay *underneath* the skeleton); Vávra and Šťastný have since provided more ammunition for this view, focusing on the extent of disarticulation and the frequent association of human and animal bones in the same pits (Vávra & Šťastný, 2010). Although there are few Tumulus cemeteries in the Kolín district there are a considerable number of Lausitz cemeteries (Šumberová, 2007); one of them, at Velký Osek, district Kolín, is of unknown size but has a mass burial in Grave 4, with at least 12 individuals and animal bones. It is thus simply not the case that there are no contemporary burial sites in the region. Although Peter-Röcher continues to maintain her previously published interpretation of Velim (e.g. Peter-Röcher, 2007:126), most dispassionate observers regard it with scepticism (e.g. Thorpe, 2013).

## Warfare and massacre

Several commentators, including Miloš Vávra, have suggested that the site was a place where a warlike encounter had taken place (e.g. Vávra & Šťastný, 2003; 2006). This interpretation is effectively one implication of the defence theory, in the sense that the site was overcome by hostile forces, even though defended; some or all of the inhabitants were then subject to a range of violent activities, which ended (in the case of the skeletons recovered archaeologically) with their death and disposal in pits. This was also the general conclusion of the 2007 publication, though a range of other possibilities were also considered, since not everything can be explained in this way.



## COMPARANDA

Trauma on Neolithic and Bronze Age skeletons has become much better known in recent years. The guidelines for identifying and interpreting such trauma have been reviewed by Boylston (2000) and Knüsel (2005), among others.

In 2010 a volume concerned with the question of graves and human remains on settlement sites appeared (Tichý, 2010; in Czech or Slovak, but with English or German summaries). While most of the articles are little more than catalogues of graves on sites of various prehistoric and medieval periods, in a few cases an attempt at interpretation is made. Stuchlík, for instance, considers collective graves on Early Bronze Age sites in Moravia, some of them remarkable for the complexity of deposition observed; a division into ritual, non-ritual and sacrificial graves was made – on the basis of how the bodies were disposed (Stuchlík, 2010). Comparable graves are seen in the Slovakian Únětice culture (Jelínek, 2010), and in the Věteřov and Lausitz culture site of Bystročice in Moravia (Tajer, 2010). In other cases, instances of violence applied to Bronze Age individuals were noted, for instance at Podolí-“Příčný” grave 802 (Kaderková *et al.*, 2010) or at Brno-Tuřany (Kala *et al.*, 2008). While none of these instances represents an exact parallel to Velim, either in date or in disposition, the occurrence of collective graves, sometimes accompanied by violence, sometimes cultic in nature, and in the same part of central Europe as Velim, is interesting – and probably more than a coincidence. Some of them perhaps fit the category of “mass graves”, as considered by Knüsel (2005).

These finds are overshadowed by a still more significant one. Since the 2007 publication, a new project in Germany has added considerably to the confidence with which we can interpret the remains at Velim.

The valley of the Tollense river, north of Altentreptow in Mecklenburg-Vorpommern (Jantzen *et al.*, 2011), has produced remarkable material over a number of years. Although work is ongoing at this site, and relatively few publications are so far in the public domain, the general picture is reasonably clear. Over a 3 km stretch of the river, Bronze Age artefacts and human bones have been recovered from the river bed and from material dredged from it, as well as in selected spots on or near the river bank where excavation has taken place (plate III). Among the finds are tools and weapons such as knives, arrowheads and spearheads, adzes, a dagger blade, a small sword fragment, and two wooden clubs. Even more significant are the range of human bones with trauma, notably a skull with a large fracture on the frontal part (plate IV), and several post-cranial bones with lesions, including an arrowhead embedded in a right humerus. Radiocarbon dates place the majority of the skeletal material within a couple of decades of 1200 cal BC.

The excavators have, not surprisingly, interpreted the site (or sites) as the place where a battle took place, even though the area is fairly extensive and might represent the location of a number of violent episodes.

Another site with features comparable to those at Velim is Cliffs End Farm, Kent, south-east England. This site was excavated in 2004-05 in advance of housing development; at present only preliminary reports are available (Bradley, 2013; McKinley *et al.*, 2013). A number of Early Bronze Age barrows were present, succeeded by a series of enclosures, and a “mortuary feature” and a large pit (plate V). These contained much



human bone, and spanned a long period of time from Late Bronze Age to Middle Iron Age. At least 24 Late Bronze Age individuals were present in the mortuary feature, and more in the pit, along with animal bones.

An elderly female lay in the pit, “with evidence for sharp weapon trauma to the back of the skull. The woman had been killed by multiple blows using a fairly long sharp-edged weapon with a relatively narrow blade, most probably a sword.... (plate VI). Two children and a teenage girl had been buried with her, together with the partially articulated and re-arranged remains of an adult male. The children’s skulls had both been manipulated following partial decomposition and the teenager’s head and upper body lay over the head and neck of a cow.... The corpses were not deposited in a single episode but probably within a relatively short time of each other (weeks or months) with no intervening backfilling of the pit.... The *in situ* remains did not lie at the base of the pit but over several deliberate deposits of burnt material which included some human bone and which in turn overlay a pair of neonatal lambs deposited at least a year before the elderly woman died; a second pair of lambs had been laid over the woman’s lap” (McKinley *et al.*, 2013:170-172).

The Late Bronze Age remains were the most extensive, but use of the feature continued into the Iron Age, when disarticulated skeletal material was introduced as well as articulated skeletons. This is interesting, in the light of the Velim results, in that it suggests the repeated opening and use of a designated deposition area, just as was the case at Velim. The combination of human and animal bone, and the deposition of many individuals in the same pit, is also interesting as a parallel.

Another place where collective burials, some showing trauma, have been found is Sund, Inderøy, Nord-Trøndelag, Norway. Here, twenty-two people, half of them children, were found on the Bronze Age ground surface along with animal bones (Fyllingen, 2003; 2006); of the adults, nearly all were over 40 at the time of death, and several had sword, axe or spear wounds. Some of these wounds had healed (indicating continuing violence) but some had not, in other words were recent and plausibly to be connected with the death of the individuals concerned. Fyllingen interprets these finds as evidence of a warrior society, though quite why all should have been buried in one pit is unclear (the three radiocarbon dates available suggest a wide span of time in the Early and Middle Bronze Age).

I refrain from considering other sites in detail, such as Hernádkak grave 122, Wassenaar or Tormarton (Bóna, 1975:150, taf. 155:4; Louwe Kooijmans, 1993; Osgood, 2006), since these have been discussed several times before; all show evidence of violence to the individual in Bronze Age contexts. Several other comparable instances could be enumerated, but none adds significantly to what these examples show (listed in e.g. Thorpe, 2006).

## **TOWARDS AN UNDERSTANDING OF WAR AND VIOLENCE IN BRONZE AGE EUROPE**

If these indications of violence are to be understood in the context of Bronze Age society, it is necessary to have an appreciation not only of the details of the various

on-site contexts, but also some understanding of the nature of group violence in prehistory. I have argued before that during the course of the Bronze Age, a progression can be seen from the rise of the individual warrior in the Early Bronze Age, through the evolution of warrior status by means of the creation of new fighting equipment in the Middle Bronze Age, to the fully fledged fighting force in the Late Bronze Age, probably consisting of war bands owing allegiance to a warrior leader (Harding, 2007). Such an interpretation is based both on the artefactual evidence and by analogy with subsequent periods (Iron Age and early medieval). How would Velim and the Tollense valley fit with such a reconstruction?

The Tollense finds are, on the face of it, easier to understand, since there is a direct association between traumatized skeletal remains and weaponry of various kinds – even if the exact location and context of the violence is, as yet, unclear. Possible interpretations include the dumping of corpses in the river, or the cornering of individuals beside the river, followed by their slaughter (or both). The interpretation of the site, or sites, as the aftermath of a battle, seems highly plausible; it is hard to see what else the remains could represent. Given the abundance of weaponry in Late Bronze Europe, violence directed against individuals or groups could be regarded as an inevitable consequence.

Velim lies 150 or more years earlier than the Tollense valley finds (the radiocarbon dates suggest 1400 cal BC, though that would normally be considered too early for the Br C-D transition and the beginning of the Urnfield period). However that argument develops, it is clear that most of the artefactual material at Velim (including the “Velim type” of pottery) belongs to a late phase of the Tumulus culture, when the characteristic weaponry of the Late Bronze Age was mostly in place (notably the sword and the spearhead). Such finds are present in many Tumulus culture graves further west, for instance in the west Bohemian graves near Plzeň (Čujanová-Jílková, 1970). In other words, the warrior society was already well developed by this stage, even if it had not achieved the complexity seen in the main part of the Urnfield period.

There are domestic elements on the Velim site, and there are cultic elements, for instance, the collecting up of crania and their careful deposition in pits (feature 154: Vávra, 2000:38-40, fig. III:27). There are also very obvious defensive elements. But none of this should distract us from the most remarkable aspect of all: the collective dumping of bodies, including those of infants, in pits; this occurred several times, though how many times is impossible to say. That means that one cannot talk about a single episode of violence, but several. In other words, the society within which Velim rose and fell was one of repeated violence.

This does not mean that every part of the Bronze Age world was home to comparable activities, but it does suggest that life in east-central Bohemia in the decades around 1400 was a precarious thing. There can be no doubt that violence was endemic in this part of central Europe at least during this time period; the fact that it does not seem to appear in a defined “horizon of violence” seems to suggest that its appearance was localized, at least initially. Over the longer timescale, the arrival of the new elements that characterize the Urnfield cultures must be considered; but it is probably a step too far to see the events at Velim in that light on present knowledge. Contrariwise, the events in Mecklenburg-Vorpommern some 200 years later might seem to postdate the start of the Urnfield period, if we take 1350/1300 as that point in time.

What this suggests is that, regardless of any wider Bronze Age *Völkerwanderung*, such as has been suggested for Europe in the 13<sup>th</sup> century BC (Kimmig, 1964), episodes of violence occurred with some regularity in Bronze Age Europe. Seen in this light, what happened at Velim was characteristic of the age.

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## REFERENCES

- BÓNA, I. (1975): *Die mittlere Bronzezeit Ungarns und ihre südöstlichen Beziehungen*, Akadémiai Kiadó, Budapest.
- BOYLSTON, A. (2000): "Evidence for weapon-related trauma in British archaeological samples", *Human Osteology in Archaeology and Forensic Science* (Cox, M. & Mays, S., eds.), Greenwich Medical Media, London, pp. 357-380.
- BRADLEY, P. (2013): "Death pits at Cliffs End. Revealing new prehistoric mortuary practices", *British Archaeology* 131 (July-August 2013), pp. 28-35.
- ČUJANOVÁ-JÍLKOVÁ, E. (1970): *Mittelbronzezeitliche Hügelgräberfelder in Westböhmen*, Študijní materiály 8, Archeologický Ústav ČSAV, Prague.
- DOČKALOVÁ, M. (1988): "Characteristika osteologických nálezů z doby bronzové na nálezišti ve Velimi u Kolína (Předběžné sdělení)", *Materiály z pracovního setkání, Brno 1988, Anthropofagie a pohřební ritus doby bronzové* (Dočkalová, M., ed.), Moravské muzeum - Ústav Anthropos. Příloha Sborníku Čs. společnosti antropologická při ČSAV, Brno.
- DOČKALOVÁ, M. (1990): "Characteristics of the Bronze Age osteological finds from the locality Velim near Kolín", *Anthropologie* 28, pp. 197-202.
- FYLLINGEN, H. (2003): "Society and violence in the Early Bronze Age: an analysis of human skeletons from Nord-Trøndelag, Norway", *Norwegian Archaeological Review* 36, pp. 27-43.
- FYLLINGEN, H. (2006): "Society and the structure of violence: a story told by Middle Bronze Age human remains from central Norway", *Warfare and Society. Archaeological and Social Anthropological Perspectives* (Otto, T., Thrane, H. & Vandkilde, H., eds.), Århus University Press, Århus, pp. 319-329.
- HARDING, A. (2007): *Warriors and Weapons in Bronze Age Europe*, Archaeolingua, Budapest.
- HARDING, A., ŠUMBEROVÁ, R., KNÜSEL, C. & OUTRAM, A. (2007): *Velim: Violence and death in Bronze Age Bohemia*, Institute of Archaeology, Prague.
- HRALA, J. (2000a): "Ritual and cult", *Velim, a Bronze Age fortified site in Bohemia* (Hrala, J., Šumberová, R. & Vávra, M., eds.), Institute of Archaeology, Prague, pp. 257-262.
- HRALA, J. (2000b): "Structures", *Velim, a Bronze Age fortified site in Bohemia* (Hrala, J., Šumberová, R. & Vávra, M., eds.), Institute of Archaeology, Prague, pp. 41-43.
- HRALA, J., SEDLÁČEK, Z. & VÁVRA, M. (1992): "Velim: a hilltop site of the Middle Bronze Age in Bohemia. Report on the excavations 1984-90", *Památky Archeologické* 83, pp. 288-308.
- JANTZEN, D., BRINKER, U., ORSCHIEDT, J., HEINEMEIER, J., PIEK, J., HAUENSTEIN, K., KRÜGER, J., LIDKE, G., LÜBKE, H., LAMPE, R., LORENZ, S., SCHULT, M. & TERBERGER, T. (2011): "A Bronze Age battlefield? Weapons and trauma in the Tollense Valley, north-eastern Germany", *Antiquity* 85, pp. 417-433.
- JELÍNEK, J. (1993): "Rites de l'Âge du Bronze et sacrifices humains en Europe Centrale", *L'Anthropologie* 97, pp. 643-662.

- JELÍNEK, P. (2010): "Príspevok k interpretácii tzv. Masových hrobov z prostredia únětickéj kultúry", *Hroby, pohřby a lidské pozůstatky na pravěkých a středověkých sídlištích* (Tichý, R., ed.), Živá archeologie, Supplementum 3 - (Re)konstrukce a experiment v archeologii, Katedra archeologie Filozofické fakulty university Hradec Králové, Hradec Králové, pp. 93-100.
- KADERKOVÁ, P., KALA, J. & PARMA, D. (2010): "Ohněm a kyjem. Další příklad násilných praktik starší doby bronzové", *Hroby, pohřby a lidské pozůstatky na pravěkých a středověkých sídlištích* (Tichý, R., ed.), Živá archeologie, Supplementum 3 - (Re)konstrukce a experiment v archeologii, Katedra archeologie Filozofické fakulty university Hradec Králové, Hradec Králové, pp. 223-233.
- KALA, J., KONÁŠOVÁ, K. & SMRČKA, V. (2008): "Pohřby ze zásobních jam na okraji únětického pohřebiště v Brně-Tuřanech", *Acta Archaeologica Opaviensia* 3, pp. 61-78.
- KIMMIG, W. (1964): "Seevölkerbewegung und Urnenfelderkultur. Ein archäologisch-historischer Versuch", *Studien aus Alteuropa*, Teil I (Uslar, R. V. & Narr, K. J., eds.), Böhlau Verlag, Köln-Graz, pp. 220-283.
- KNÜSEL, C. (2005): "The physical evidence of warfare - subtle stigmata?", *Warfare, Violence and Slavery in Prehistory* (Parker Pearson, M. & Thorpe, N., eds.), B.A.R. International Series 1374, Archaeopress, Oxford, pp. 49-65.
- LOUWE KOOIJMANS, L. P. (1993): "An Early/Middle Bronze Age multiple burial at Wassenaar. the Netherlands", *Analecta Praehistorica Leidensia* 26, pp. 1-20.
- McKINLEY, J. I., SCHUSTER, J. & MILLARD, A. (2013): "Dead-sea connections: a Bronze Age and Iron Age ritual site on the Isle of Thanet", *Celtic from the West 2: Rethinking the Bronze Age and the Arrival of Indo-European in Atlantic Europe* (Koch, J.T. & Cunliffe, B., eds), Celtic Studies Publications XVI, Oxbow, Oxford, pp. 157-183.
- OSGOOD, R. (2006): "The dead of Tormarton: Bronze Age combat victims?", *Warfare and Society. Archaeological and Anthropological Perspectives* (Otto, T., Thrane, H. & Vandkilde, H., eds.), Århus University Press, Århus, pp. 331-340.
- PETER-RÖCHER, H. (2005): "Velim - eine bronzezeitliche Befestigungsanlage?", *Interpretationsraum Bronzezeit. Festschrift für Bernhard Hänsel von seinen Schülern gewidmet* (Horejs, B., Jung, R., Kaiser, E. & Teržan, B., eds.), Universitätsforschungen zur Prähistorischen Archäologie 121, Habelt, Bonn, pp. 415-429.
- PETER-RÖCHER, H. (2007): *Gewalt und Krieg im prähistorischen Europa*, Universitätsforschungen zur Prähistorischen Archäologie 143, Habelt, Bonn.
- STUČHLÍK, S. (2010): "Hromadné pohřby na sídlištích starší doby bronzové na Moravě", *Hroby, pohřby a lidské pozůstatky na pravěkých a středověkých sídlištích* (Tichý, R., ed.), Živá archeologie, Supplementum 3 - (Re)konstrukce a experiment v archeologii, Katedra archeologie Filozofické fakulty university Hradec Králové, Hradec Králové, pp. 80-92.
- ŠUMBEROVÁ, R. (2007): "Velim-Skalka and its territory in the Bronze Age", *Velim: Violence and death in Bronze Age Bohemia* (Harding, A., Šumberová, R., Knüsel, C. & Outram, A.), Institute of Archaeology, Prague, pp. 154-157.
- TAJER, A. (2010): "Pohřby v sídlištních jámách z doby bronzové v Bystročicích", *Hroby, pohřby a lidské pozůstatky na pravěkých a středověkých sídlištích* (Tichý, R., ed.), Živá archeologie, Supplementum 3 - (Re)konstrukce a experiment v archeologii, Katedra archeologie Filozofické fakulty university Hradec Králové, Hradec Králové, pp. 105-116.
- THORPE, N. (2006): "Fighting and feuding in Neolithic and Bronze Age Britain and Ireland", *Warfare and Society. Archaeological and Anthropological Perspectives* (Otto, T., Thrane, H. & Vandkilde, H., eds.), Århus University Press, Århus, pp. 141-165.
- THORPE, N. (2013): "Warfare in the European Bronze Age", *The Oxford Handbook of the European Bronze Age* (Fokkens, H. & Harding, A., eds.), Oxford University Press, Oxford, pp. 234-247.
- TICHÝ, R. (ed.) (2010): *Hroby, pohřby a lidské pozůstatky na pravěkých a středověkých sídlištích*, Živá archeologie, Supplementum 3 - (Re)konstrukce a experiment v archeologii, Katedra archeologie Filozofické fakulty university Hradec Králové, Hradec Králové.
- VÁVRA, M. (1999): "Velimské otazníky", *Vita archaeologica. Sborník věnovaný k sedmdesátinám Vita Vokolka*, Muzeum východních Čech v Hradci Králové, Východočeské muzeum v Pardubicích, Hradec Králové – Pardubice, pp. 343-357.
- VÁVRA, M. (2000): "Archaeological features", *Velim, a Bronze Age fortified site in Bohemia* (Hrala, J., Šumberová, R. & Vávra, M., eds.), Institute of Archaeology, Prague, pp. 13-40.

- VÁVRA, M. & ŠŤASTNÝ, D. (2003): "Nové poznatky o opevnění velimské Skalky v době bronzové", *Archeologie ve středních Čechách* 7, pp. 163-173.
- VÁVRA, M. & ŠŤASTNÝ, D. (2004): "K interpretaci mladších náleзовých situací z doby bronzové (Velim u Kolína)", *Archeologie ve středních Čechách* 8, pp. 243-259.
- VÁVRA, M. & ŠŤASTNÝ, D. (2006): "Úvaha nad interpretacemi starších náleзовých situací z Velimi", *Acta Archaeologica Opaviensia* 2, pp. 179-192.
- VÁVRA, M. & ŠŤASTNÝ, D. (2010): "Pohřby na sídlištích z Kolínska a 'pohřby' z velimské Skalky", *Hroby, pohřby a lidské pozůstatky na pravěkých a středověkých sídlištích* (Tichý, R., ed.), *Živá archeologie*, Supplementum 3 - (Re) konstrukce a experiment v archeologii, Katedra archeologie Filozofické fakulty university Hradec Králové, Hradec Králové, pp. 31-36.





Plate I.—Velim, Pit 64, partially excavated, showing tumbled stone and bones.



Plate II.—Velim, section through the fill of the “Red Ditch”, fortification H in Vávra’s nomenclature.





Plate III.—Tollense valley, Weltzin site. View of excavated area beside the river, showing scattered human bones (Photo: C. Jantzen, by kind permission of the Tollense valley research team and Antiquity).



Plate IV.—Tollense valley, Weltzin site. Cranium with large wound (Photo: D. Jantzen, by kind permission of the Tollense valley research team and Antiquity).





Plate V.—Cliffs End Farm, Kent, UK: pit 3666, showing the *in situ* human remains  
(© Wessex Archaeology, by kind permission).



Plate VI.—Cliffs End Farm, Kent, UK: burial 3675, showing sharp weapon trauma to the back of the skull  
(© Wessex Archaeology, by kind permission).